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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/499,563	02/07/2000	Satoshi Yoneya	450100-02315	1453

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EXAMINER

TRAN, THAI Q

ART UNIT PAPER NUMBER

2616

DATE MAILED: 06/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/499,563

Applicant(s)

YONEYA ET AL.

Examiner

Thai Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 April 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-56 is/are pending in the application.
- 4a) Of the above claim(s) 29-56 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 February 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed April 8, 2005 have been fully considered but they are not persuasive.

In re pages 14-16, applicants argue that neither Morioka nor Sugiyama, taken alone or in combination teach or suggest the newly added limitation "wherein each of said random accessible record media is operable to store at least two different types of data thereby storing a higher quantity of data within each of said plurality of randomly accessible record media than storing only a single type of data therein".

In response, the examiner respectfully disagrees. Sugiyama discloses in col. 11, lines 29-36 that at least two different types of data can be recorded on the magnetic tape. Sugiyama et al additionally teaches in col. 13, lines 36-42 that, in the above first, second, and third embodiments, the magnetic tape 8 is used as the recording medium, but it will be appreciated that the invention is also applicable for other recording media, such as a magnetic disk, optical disk, semiconductor memory, etc., if the same recording format is employed and the recording amount of information is fixed.

When the at least two different types of data are recorded on other recording media such as a magnetic disk, optical disk, semiconductor memory, the magnetic disk, optical disk, semiconductor memory store at least two different types of data thereby storing a higher quantity of data within each of said plurality of randomly accessible record media than storing only a single type of data there. Thus, Sugiyama does indeed disclose the newly added limitation "wherein each of said random accessible record

media is operable to store at least two different types of data thereby storing a higher quantity of data within each of said plurality of randomly accessible record media than storing only a single type of data therein”.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 7-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugiyama et al (US 5,889,921) as set forth in the last Office Action.

Regarding claim 7, Sugiyama et al discloses a data recording apparatus (Fig. 7), comprising:

a record medium (magnetic tape 8 of Fig. 7, col. 10, lines 63-65) which is operable to store therein at least two different types of data;

recording means (magnetic head 10 of Fig. 7, col. 10, lines 63-65) for recording data to said record medium; and

a plurality of output processing means (the audio and video processing components as shown in Fig. 7) for accessing said recording means on time division basis and outputting said at least two different types of data that are input from the outside to the recording means, wherein each of said output processing means has:

input means (col. 10, line 38 to col. 11, line 36) for outputting record area information and the data to said recording means so that the different types of data are recorded to predetermined areas of said record medium, and

wherein said recording means records the different types of data to the predetermined areas corresponding to the record area information that is output from said input means (col. 11, lines 29-36);

wherein the recording medium is operable to store at least two different types of data thereby storing a higher quantity of data in the randomly accessible record medium than storing only a single type of data therein (col. 11, lines 29-36). However, Sugiyama et al does not specifically disclose that the record medium is random-accessible.

Sugiyama et al additionally teaches in col. 13, lines 36-42 that, in the above first, second, and third embodiments, the magnetic tape 8 is used as the recording medium, but it will be appreciated that the invention is also applicable for other recording media, such as a magnetic disk, optical disk, semiconductor memory, etc., if the same recording format is employed and the recording amount of information is fixed. It is noted that the capability of random accessibility of magnetic disk, optical disk, and

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semiconductor memory is old and well known in the art and; therefore, Official Notice is taken.

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the well known random accessibility of magnetic disk, optical disk, and semiconductor memory into Sugiyama et al's system in order to decrease the time in accessing the desired data recorded in the recording medium with the random accessibility.

Regarding claim 8, Sugiyama et al also discloses the claimed wherein the different types of data are video and audio data (col. 11, lines 29-36).

Regarding claim 9, Sugiyama et al discloses the claimed wherein the record area information is information representing an address of a record start position and an address of a record end position of said record medium (col. 11, lines 29-36).

Method claims 10-12 are rejected for the same reasons as discussed in the corresponding apparatus claims 7-10 above.

Regarding claim 13, Sugiyama et al discloses a data recording and reproducing apparatus (Fig. 7), comprising:

- a recording medium (magnetic tape 8 of Fig. 7, col. 10, lines 63-65) which is operable to store therein at least two different types of data;

- recording and reproducing means (magnetic head 10 of Fig. 7, col. 10, lines 63-65) for recording and reproducing the data to and from said record medium, the data containing video data and audio data; and

a plurality of input and output processing means (the audio and video processing components as shown in Fig. 7) for accessing said recording and reproducing means on time division basis, outputting data that is input from the outside to said recording and reproducing means, and outputting the data to the outside,

wherein each of said output processing means has:

input means (col. 10, line 38 to col. 11, line 36) for changing the divide ratio of a record area for video data and a record area for audio data of said recording medium corresponding to at least the data that is input from the outside and outputting record area information and the data to said recording and reproducing means so that the video data and the audio data area recorded to predetermined areas of the recording medium, and

wherein said recording and reproducing means records the data to the predetermined areas corresponding to the record area information that is output from said input means (col. 11, lines 29-36), reproduces the data from said record medium, and outputs the reproduced data to each of said input and output processing means on time division basis;

wherein the record medium is operable to store at least two different types of data thereby storing a higher quantity of data in the randomly accessible record medium than storing only a single type of data therein (col. 11, lines 29-36). However, Sugiyama et al does not specifically disclose that the record medium is random-accessible.

Sugiyama et al additionally teaches in col. 13, lines 36-42 that, in the above first, second, and third embodiments, the magnetic tape 8 is used as the recording medium,

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but it will be appreciated that the invention is also applicable for other recording media, such as a magnetic disk, optical disk, semiconductor memory, etc., if the same recording format is employed and the recording amount of information is fixed. It is noted that the capability of random accessibility of magnetic disk, optical disk, and semiconductor memory is old and well known in the art and; therefore, Official Notice is taken.

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the well known random accessibility of magnetic disk, optical disk, and semiconductor memory into Sugiyama et al's system in order to decrease the time in accessing the desired data recorded in the recording medium with the random accessibility.

Regarding claim 14, Sugiyama et al also discloses the claimed wherein each of said input and output processing means changes the divide ratio corresponding to the transmission rate of the video data that is input from the outside and the number of channels of the audio data (col. 11, lines 29-36).

Regarding claim 15, as discussed above with respect to claim 13, Sugiyama et al discloses the claimed wherein the recording medium that is random-accessible is a disc shaped record medium; however, does not specifically disclose the claimed wherein each of said input and output processing means changes the divide ratio corresponding to a recording method of RAID for the audio data along with the transmission rate of the video data and the number of channels of the audio data.

It is further noted that the use of RAID for recording and reproducing video and audio is also old and well known in the art and; therefore, Official Notice is again taken.

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the well known RAID into Sugiyama et al's system in order to increase the storage capacity because RAID has higher storage capacity.

Regarding claim 16, Sugiyama et al further discloses the claimed wherein the record area information is information representing an address of a record start position and an address of a record end position of the record medium (col. 11, lines 29-36).

Regarding claim 17, Sugiyama et al discloses a data recording and reproducing method (Fig. 7) for accessing according and reproducing means, outputting data to the recording and producing means, inputting reproduced data that is output from the recording and reproducing means, and outputting the data to the outside, the recording and reproducing means recording and reproducing the data to and from a record medium, the data containing video and audio data that are input from the outside, the method comprising the steps of:

changing the divide ratio of a record area for the video data and a record area for the audio data on the record medium corresponding to at least the data that is input from the outside and outputting record area information and the data to the recording and reproducing means so that the video data and the audio data are recorded to different record areas of the record medium (col. 10, line 38 to col. 11, line 36);

recording the video data and the audio data to the different record areas of the record medium corresponding to the record area information that is output to the recording and reproducing means at the changing step (col. 11, lines 29-36); and

reproducing the data from the record medium and outputting the reproduced data to each of input and output processing means (col. 11, lines 37-58);

wherein the record medium is operable to store at least two different types of data resulting in more data being stored in the recording medium than storing only a single type of data therein. However, Sugiyama et al does not specifically disclose that the record medium is random-accessible.

Sugiyama et al additionally teaches in col. 13, lines 36-42 that, in the above first, second, and third embodiments, the magnetic tape 8 is used as the recording medium, but it will be appreciated that the invention is also applicable for other recording media, such as a magnetic disk, optical disk, semiconductor memory, etc., if the same recording format is employed and the recording amount of information is fixed. It is noted that the capability of random accessibility of magnetic disk, optical disk, and semiconductor memory is old and well known in the art and; therefore, Official Notice is taken.

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the well known random accessibility of magnetic disk, optical disk, and semiconductor memory into Sugiyama et al's system in order to decrease the time in accessing the desired data recorded in the recording medium with the random accessibility.

Regarding claim 18, Sugiyama et al also discloses the claimed wherein the changing step is performed by changing the divide ratio corresponding to the transmission rate of the video data that is input from the output and the number of channels of the audio data (col. 11, lines 29-36).

Regarding claim 19, as discussed above with respect to claim 17, Sugiyama et al discloses the claimed wherein the recording medium that is random-accessible is a disc shaped record medium; however, does not specifically disclose the claimed wherein the changing step is performed by changing the divide ratio corresponding to a recording method of RAID for the audio data along with the transmission rate of the video data and the number of channels of the audio data.

It is further noted that the use of RAID for recording and reproducing video and audio is also old and well known in the art and; therefore, Official Notice is again taken.

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the well known RAID into Sugiyama et al's system in order to increase the storage capacity because RAID has higher storage capacity.

Regarding claim 20, Sugiyama et al further discloses the claimed wherein the record area information is information representing an address of a record start position and an address of a record end position of the record medium (col. 11, lines 29-36).

Apparatus claims 21-24 are rejected for the same reasons as discussed in the corresponding method claims 17-20, respectively.

Method claims 25-28 are rejected for the same reasons as discussed in claims 17-20, respectively.

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4. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morioka et al (US 6,226,443) in view of Sugiyama et al (US 5,889,921) as set forth in the last Office Action.

Regarding claim 1, Morioka et al discloses a data recording/reproducing apparatus (Fig. 5), comprising:

a plurality of recording media (data recording HDD 8 of Fig. 5, col. 11, lines 14-18) that are random-accessible, in which each of said plurality of record media is operable to store therein at least two different types of data;

recording and reproducing means (data recording HDD 8 of Fig. 5, col. 11, lines 14-18) for recording and reproducing data to and from said plurality of record media;

a plurality of input and output processing means (I/Fs 32, 33, 34, and 35 of Fig. 5, col. 10, lines 60-67) for accessing said recording and reproducing means on time division basis, outputting said at least two different types of data that are input from the outside to said recording and reproducing means, and outputting the input data to the outside. However, Morioka et al does not specifically disclose that each of said plurality of input and output processing means has input means for outputting record area information and the data that is input from the outside to said reproducing and reproducing means so that the data is recorded to predetermined areas of said plurality of record media corresponding to the different types of data and wherein said recording and reproducing means records the different types of data to the predetermined areas of said plurality of record media corresponding to the record area information that is output from said input means and wherein each of said random accessible record

media is operable to store at least two different types of data thereby storing a higher quantity of data within each of said plurality of randomly accessible record media than storing only a single type of data there.

Sugiyama et al teaches a video recorder having input means for outputting record area information and the data that is input from the outside to said reproducing and reproducing means so that the data is recorded to predetermined areas of said plurality of record mediums corresponding to the different types of data and wherein said recording and reproducing means records the different types of data to the predetermined areas of said plurality of record mediums corresponding to the record area information that is output from said input means (Fig. 7 and col. 10, line 38 to col. 11, line 36) to reduce the degradation of the reproduction signal quality at the ends of the tracks and wherein each of said random accessible record media is operable to store at least two different types of data thereby storing a higher quantity of data within each of said plurality of randomly accessible record media than storing only a single type of data there (col. 11, lines 29-36).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the controlling of the recording rates of the video and audio signals to be recorded and reproduced as taught by Sugiyama et al into Morioka et al's system in order to increase the quality of the video and audio signals to be recorded/reproduced.

Regarding claim 2, Sugiyama et al discloses the claimed wherein the different types of data are video data and audio data (col. 11, lines 29-36).

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Regarding claim 3, Sugiyama et al discloses the claimed wherein the record area information is information representing an address of a record start position and an address of a record end position of one of said plurality of record media (col. 11, lines 29-36).

Method claims 4-6 are rejected for the same reasons as discussed in the corresponding apparatus claims 1-3 above.

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

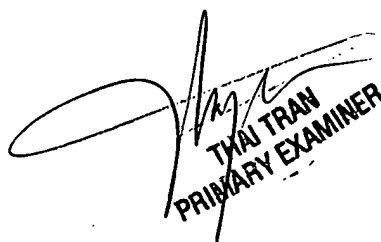
6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thai Tran whose telephone number is (571) 272-7382. The examiner can normally be reached on Mon. to Friday, 8:00 AM to 5:30 PM.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TTQ



THAI TRAN
PRIMARY EXAMINER